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TECHNICAL MEMORANDUM
Utah Coal Regulatory Program

February 22, 2011

TO: Internal File

THRU: Daron Haddock, Permit Supervisor DRH

FROM: Priscilla Burton, CPSSc, Environmental Scientist III, Team Lead PWB by SDS

RE: Change to Mining Sequence, Coal Hollow Mine, Alton Coal Development, LLC, Kane County, C/025/005, Task ID #3735

SUMMARY:

The February 7, 2011 application proposes a change in the mining sequence shown on Dwg. 5-10, and, as shown on Dwg. 2-2, increases the overall volume of salvaged and stored topsoil and subsoil with an additional 266,000 cu yds of material stored in a second subsoil stockpile and a fourth topsoil stockpile. Together, these new stockpiles will occupy 10 acres within the first year disturbed area. Additionally, the amendment changes the mine sequence and changes the narrative on pages 5-38, 5-65 and 5-68 of the MRP.

The following information is requested prior to approval:

R645-301-231.400, MRP Section 232.500 describes only one subsoil stockpile. This section should be updated to reflect that there will be two subsoil stockpiles (one for life of mine and one for the first phase of mining). And, either the narrative describing the stockpiles or Dwg. 2-2 should indicate the average height of all four topsoil stockpiles, so that volume calculations can be estimated.

R645-301-232.500, The Permittee has indicated a stockpile of 207,000 cu yds from pits 3, 4, and 5. This volume of subsoil will cover an area of 16.7 acres to a depth of 3.2 feet. The replacement plans for this salvaged subsoil stockpile should be indicated.

R645-301-234.240, The application should describe the plans for replacement of the topsoil in the 4th stockpile, since soil in this stockpile is located where first year of mining will create an excess spoil pile as shown on Dwg. 5-17.

R645-301-352 and R645-301-553, The sequence described in Section 528.200 suggests a change should be made to active pit and reclamation areas shown on Dwg. 5-17, Overburden Removal Stage 1.

TECHNICAL ANALYSIS:

OPERATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Topsoil Removal and Storage

Dwg. 2-2 illustrates topsoil removal and storage locations as well as the source of topsoil live-haul for contemporaneous reclamation sites. Four topsoil stockpiles and a subsoil pile will be located as shown on Drawing 2-2. Dwg. 2-2 describes the average depth and footprint area for each stockpile. Information on the average fill depth has been removed from this drawing. The narrative describing the stockpiles should indicate the average height of the topsoil stockpiles.

From the information on Dwg 2-2, the combined volume of topsoil stored in four stockpiles is 244,000 cu yds. There is an additional 321,000 cu yds of subsoil stored in two stockpiles. The Permittee has indicated that the new subsoil pile will be in existence for 6 months to 1 year. It has been placed out of the mining area, approximately 30 ft from sediment pond 2. In this location, the new subsoil pile could be maintained as a stockpile for longer than one year, if it is seeded in accordance with Section 234.230 (c).

The new topsoil stockpile is located immediately adjacent to the location of diversion ditch #4 shown on Dwg. 5-3. The new 4th topsoil stockpile will have a life of six months to a year. Soil in this stockpile must be replaced contemporaneously with the construction of the excess spoil pile, which is to be constructed in the location of the topsoil pile in the first year of mining as shown on Dwg. 5-17. The application should describe the location for placement of the topsoil in the 4th stockpile.

The topsoil salvage operation is described in Section 231.100 through Section 233.100-400 and in Section Four of Appendix 2-1. There has been no change to Section 231.400 describing the treatment of stockpiled soil which will be placed such that side slopes will not exceed 3h:1v and the piles will be bermed. The piles will be seeded with an interim mix described in Section 234.230 (c).

Table 4-5 in Appendix 2-1 provides the expected topsoil and subsoil recovery by year and acreage disturbed. Tables 4-3.1, 4-3.2, 4-3.3 provide similar information by map unit and acreage. Topsoil to be salvaged and placed in Topsoil stockpile #4 will be from pits numbered 3, 4, and 5, covering approximately 21 acres (Dwg 5-10). Fifteen acres of this area is soil map units #4 and #6. Six acres are map unit #2. Topsoil depth in map units #4 and #6 averages 10 inches (0.83 ft). Topsoil depth in map units #2 averages 7 inches. Based upon this information, the Division calculates an expected topsoil recovery of approximately 20,086 cu yds will be recovered from map units #4 and #6 and 5,624 cu yds of topsoil will be recovered from map units #2. (Total = 25,710 cu yds)

The Permittee has indicated a stockpile of 207,000 cu yds from pits 3, 4, and 5. This volume of subsoil will cover and area of 16.7 acres to a depth of 3 feet. The replacement plans for this subsoil should be indicated.

Total recoverable subsoil depth is reported as 70 inches for the map units 4 & 6 and 42 inches for map unit #2. Based upon this information there is a potential to salvage 1,839,000 cu yds of subsoil from map unit #4 and #6 and 338,800 cu yds from map unit #2 for use in the surface four feet of reclamation. Stratas of poor subsoil are noted in each map unit. Testing will be as described in Section 232.500 to determine whether subsoil is utilized in the surface four feet of reclamation.

Section 232.500 describes only one subsoil stockpile. This section should be updated to reflect that there will be two subsoil stockpiles (one for life of mine and one for the first phase of mining). There has been no change to the topsoil and subsoil sampling and analysis described in Section 232.500.

Findings:

The information provided in the application does not meet the requirements of the R645 Coal Rules for Soils Handling Operation Plan. Prior to approval, please provide the following, in accordance with:

R645-301-231.400, MRP Section 232.500 describes only one subsoil stockpile. This section should be updated to reflect that there will be two subsoil stockpiles (one for life of mine and one for the first phase of mining). And, either the narrative

describing the stockpiles or Dwg. 2-2 should indicate the average height of all four topsoil stockpiles, so that volume calculations can be estimated.

R645-301-232.500, The Permittee has indicated a stockpile of 207,000 cu yds from pits 3, 4, and 5. This volume of subsoil will cover and area of 16.7 acres to a depth of 3.2 feet. The replacement plans for this salvaged subsoil stockpile should be indicated.

R645-301-234.240, The application should describe the plans for replacement of the topsoil in the 4th stockpile, since soil in this stockpile is located where first year of mining will create an excess spoil pile as shown on Dwg. 5-17.

RECLAMATION PLAN

CONTEMPORANEOUS RECLAMATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.100; R645-301-352, -301-553, -302-280, -302-281, -302-282, -302-283, -302-284

Analysis:

The reclamation plan described in Section 542 is contemporaneous with the operation plan described in Section 528. There has been no change to Dwg. 5-16 showing the area of overburden removal in the first bonded phase (or year) of mining. It is not clear from the modified narrative in Sections 528.200 and 552.200 whether the Year 1 mining area shown on Dwg 5-38 is still accurate. Operational sequence and contemporaneous reclamation sequence is shown on Dwg 5-17 through 5-19. There have been no changes made to these drawings, although the sequence described in Section 528.200 suggests a change should be made to Dwg. 5-17.

The new (4th) topsoil stockpile is shown in the path of the excess spoil pile which is to be constructed as shown on Dwg. 5-17. As requested under R645-301-234.240, the timeframe for redistribution of this topsoil pile should be explained.

There has been no change to Section 542 which states that mining pits will be reclaimed within 180 days of coal removal or 1,500 ft. of active coal face. There has been no change to Section 528.310 describing 8.6 million cubic yards in an 87 acre excess spoil pile as shown on Dwg 5-35 and 5-36. All reclaimed slopes will be 3h:1v. The surface four feet of all reclaimed

surfaces will be replaced topsoil and subsoil. The post mining land use is grazing land or pastureland.

Findings:

Prior to approval, please provide the following, in accordance with:

R645-301-352 and R645-301-553, The sequence described in Section 528.200 suggests a change should be made to active pit and reclamation areas shown on Dwg. 5-17, Overburden Removal Stage 1.

RECOMMENDATIONS:

The information requested should be addressed before approval.

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